AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Previously Presented) A method of transmitting an encoded sequence over a network to a terminal, comprising:

storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression;

transmitting a current one of said versions;

ascertaining a data transmission rate permitted by the network;

ascertaining the current contents of a receiving buffer at the terminal;

for at least one candidate version, computing, in respect of at least one discrete portion thereof as yet unsent, the maximum timing error of one or more portions starting with that portion if said one or more portions are sent at the currently ascertained data transmission rate;

comparing the determined maximum timing error of each said at least one candidate version with the ability of the receiving buffer to accommodate the respective maximum timing error given the ascertained current contents of the receiving buffer;

selecting one of said candidate versions for transmission, in dependence on the results of said comparisons; and

transmitting the selected version,

wherein the timing error of a discrete portion of a candidate version is the difference between the time needed to transmit the discrete portion at the currently ascertained permitted transmission data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer.

2. (Previously Presented) A method of transmitting an encoded sequence over a network to a terminal, comprising:

storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression;

for each version and for each of a plurality of nominal transmitting rates, computing in respect of at least one discrete portion thereof the maximum timing error that would occur were any number of portions starting with that portion to be sent at the respective nominal rate;

storing said maximum timing error values;

transmitting a current one of said versions;

ascertaining a data transmission rate permitted by the network;

ascertaining the current contents of a receiving buffer at the terminal;

for at least one candidate version, using the ascertained permitted data rate and the stored maximum timing error values to estimate a respective maximum timing error value corresponding to said ascertained permitted data transmission rate;

comparing the estimated maximum timing error of each said at least one candidate version with the ability of the receiving buffer to accommodate the respective maximum timing error given the ascertained current contents of the receiving buffer;

selecting one of said versions for transmission, in dependence on the results of said comparisons; and

transmitting the selected version,

wherein the timing error of a discrete portion of a candidate version is the difference between the time needed to transmit the discrete portion at the currently ascertained permitted transmission data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer.

3. (Previously Presented) A method according to claim 1, in which said maximum timing error determination is performed only for selected ones of said portions at which a version change is to be permitted.

4. (Currently Amended) A method of transmitting an encoded sequence over a network to a terminal, comprising:

storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression;

transmitting a current one of said versions;

ascertaining a data transmission rate permitted by the network;

ascertaining the current contents of a receiving buffer at the terminal;

for at least one candidate version, computing, in respect of a plurality of discrete portions thereof as yet unsent, the maximum timing error of one or more portions starting with that portion if said one or more portions are sent at the currently ascertained data transmission rate;

comparing the determined maximum timing error of each said at least one candidate version with the ability of the receiving buffer to accommodate the respective maximum timing error given the ascertained current contents of the receiving buffer;

selecting one of said candidate versions for transmission, in dependence on the results of said comparisons; and

transmitting the selected version,

~~A method according to claim 1,~~ wherein, each computed timing error of said one or more portions starting with that portion if said one or more portions are sent at the currently ascertained permitted transmission data is the difference between (a) the time needed to transmit, at the relevant transmission rate, the portion in question and zero or more consecutive subsequent portions up to and including any particular portion, and

(b) the difference between the playing instant of the respective particular portion and the playing instant of the portion preceding the portion in question.

5. (Previously Presented) A method according to claim 1 in which the sequence is a video sequence.

6. (Original) A method according to claim 1 in which the sequence is an audio sequence.

7. (Previously Presented) A storage medium for storing a video recording comprising:

a plurality of encoded versions of the same video sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression; and

for each discrete portion of each version and for each of a plurality of nominal transmitting rates, a maximum value of current buffer fullness for that portion, being the maximum of (a) the value needed to avoid buffer underflow that would occur were that portion to be sent at the respective nominal rate to a receiving buffer; and

(b) the values needed to avoid buffer underflow that would occur were that portion and any number of subsequent portions subsequent thereto to be sent at the respective nominal rate; wherein the timing error of a discrete portion of a version is the difference between the time needed to transmit the discrete portion at the respective

nominal transmitting data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer.

8. (Previously Presented) A storage medium for storing an audio recording comprising:

a plurality of encoded versions of the same audio sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression; and

for each discrete portion of each version and for each of a plurality of nominal transmitting rates, a maximum value of current buffer fullness for that portion, being the maximum of (a) the value needed to avoid buffer underflow that would occur were that portion to be sent at the respective nominal rate to a receiving buffer; and

(b) the values needed to avoid buffer underflow that would occur were that portion and any number of subsequent portions subsequent thereto to be sent at the respective nominal rate,

wherein the timing error of a discrete portion of a version is the difference between the time needed to transmit the discrete portion at the respective nominal transmitting data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer.

9. (Previously Presented) An apparatus for transmitting an encoded sequence over a network to a terminal, comprising:

a store storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression;

a transmitter; and

control means operable to receive data as to a data rate permitted by the network and data as to the state of fullness contents of a receiving buffer at the terminal and, for at least one candidate version, to compute in respect of at least one discrete portion thereof as yet unsent the maximum value of current buffer fullness that would be needed to avoid buffer underflow were any number of portions starting with that portion to be sent at the permitted rate, to compare the determined maximum needed buffer fullness values with the ability of the receiving buffer to accommodate the respective maximum timing error given the ascertained current contents of the receiving buffer fullness and to select one of said versions for transmission, in dependence on the results of said comparisons,

wherein the timing error of a discrete portion of a candidate version is the difference between the time needed to transmit the discrete portion at the currently ascertained permitted transmission data rate and the difference in time between the playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer.

10. (Previously Presented) An apparatus for transmitting an encoded sequence over a network to a terminal, comprising:

a store storing a plurality of encoded versions of the same sequence, wherein each version comprises a plurality of discrete portions of data and each version corresponds to a respective different degree of compression, each version including, for each of a plurality of nominal transmitting rates, in respect of at least one discrete portion thereof, the maximum value of current buffer fullness that would be needed to avoid receiver buffer underflow at the terminal were any number of portions starting with that portion to be sent at the respective nominal rate;

a transmitter; and

control means for receiving data as to a data rate permitted by the network and data as to the state of fullness current contents of a receiving buffer at the terminal and, for at least one candidate version, to use the permitted data rate and the stored maximum needed buffer fullness values to estimate a respective maximum needed buffer fullness value corresponding to said permitted data rate, to compare the estimated maximum needed buffer fullness value(s) with ability of the receiving buffer to accommodate the respective maximum timing error given the ascertained current contents of the receiving buffer fullness state and to select one of said versions for transmission, in dependence on the results of said comparisons,

wherein the timing error of a discrete portion of a candidate version is the difference between the time needed to transmit the discrete portion at the currently ascertained permitted transmission data rate and the difference in time between the

playing instant of the respective portion at the receiving buffer and the preceding playing instant of a portion received by said receiving buffer.

11. (Previously Presented) A method according to claim 1, wherein a discrete data portion comprises a data packet.

12. (Previously Presented) A method according to claim 1, wherein a discrete data portion comprises a data packet and wherein a said packet has one or more pre-calculated maximum timing errors stored in it.

13. (New) A method according to claim 4, in which said maximum timing error determination is performed only for selected ones of said portions at which a version change is to be permitted.

14. (New) A method according to claim 4 in which the sequence is a video sequence.

15. (New) A method according to claim 4 in which the sequence is an audio sequence.

16. (New) A method according to claim 4, wherein a discrete data portion comprises a data packet.

17. (New) A method according to claim 4, wherein a discrete data portion comprises a data packet and wherein a said packet has one or more pre-calculated maximum timing errors stored in it.